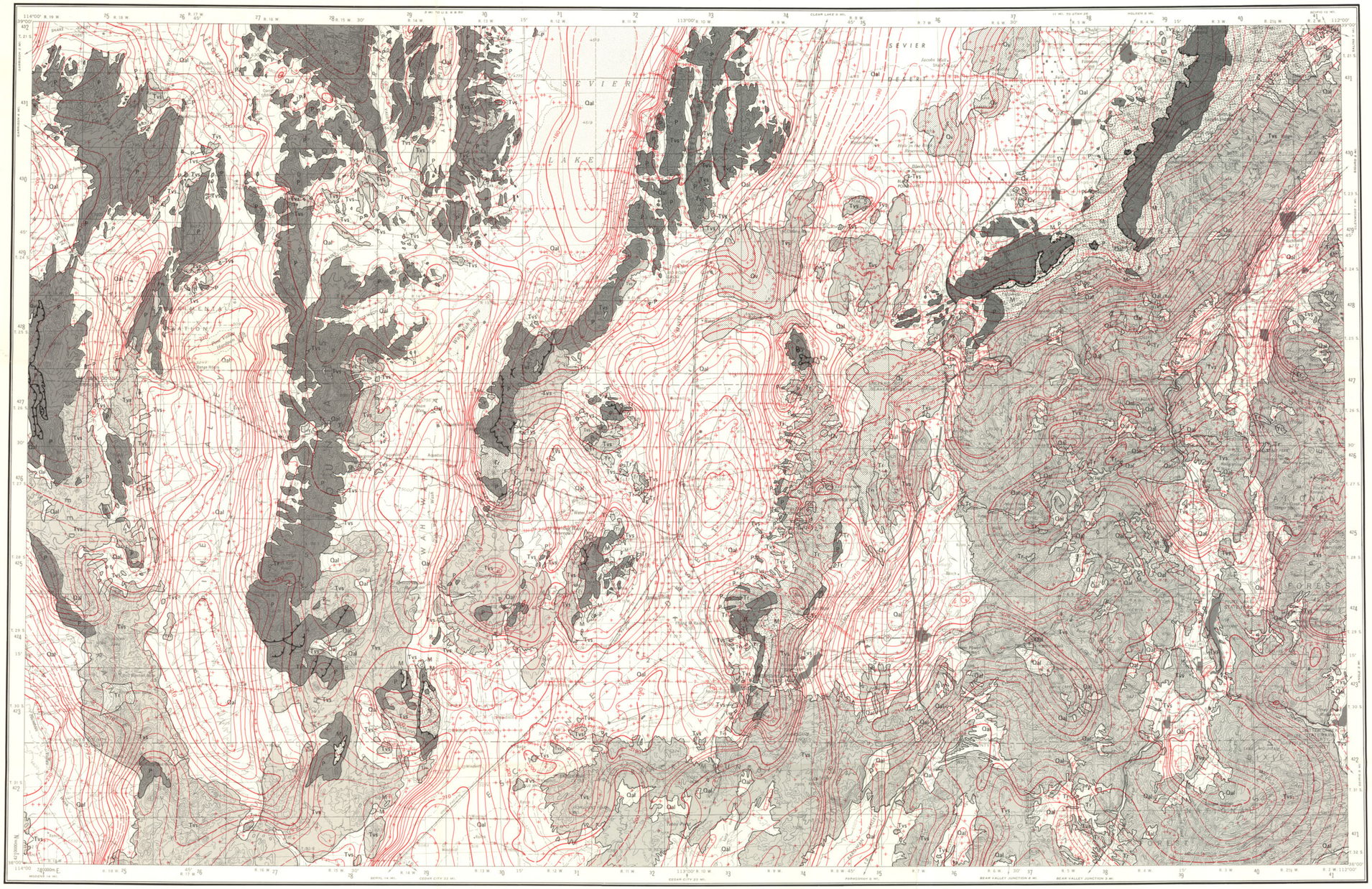


EXPLANATION

GEOLOGY

Geology taken from Stevens, *et al.*, 1978

TERTIARY QUATERNARY

- Qal — Alluvium, colluvium, lake deposits undifferentiated.
- Qv — Volcanics, mostly basalt.
- Tvs — Volcanics and sedimentary rocks, undifferentiated. Includes Sevier River Formation (transitional between late Tertiary and Quaternary) in parts of Tushar Mountains and Pavant Range.

TERTIARY PRE-TERTIARY

- M — Mesozoic rocks, undifferentiated. Includes North Horn Formation (transitional between Cretaceous and Tertiary) in Pavant Range area.
- P — Paleozoic and Precambrian rocks, undifferentiated.
- Tr — Intrusive rocks

Thrust fault

Dashed where approximately located or concealed. Saw teeth on side of upper plate.

GRAVITY

−200− Gravity contour

Dashed where inferred; contour interval 2 milligals. Complete Bouguer gravity anomaly values.

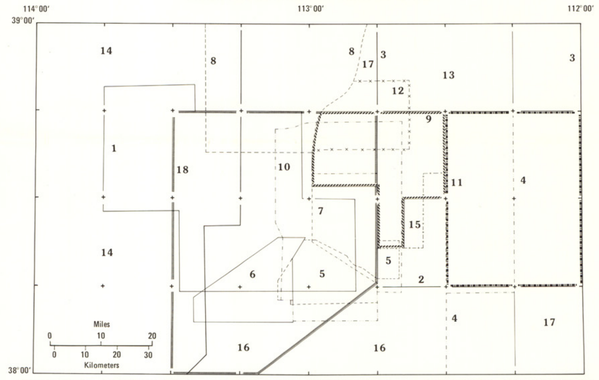
\+ Gravity station

□ Gravity base station

REDUCTION OF GRAVITY DATA

For the reduction of the gravity data, the total elevation correction factor was taken as 0.05999 mgal/ft (0.19683 mgal/m), which includes a free-air correction of 0.09406 mgal/ft (0.30861 mgal/m) and a Bouguer correction of 0.03407 mgal/ft (0.11178 mgal/m) for an assumed crustal density of 2.67 gm/cc. For theoretical gravity at mean sea level, the International Gravity Formula of 1930 was used. The data were tied to the values of the base stations in the gravity base station network in Utah (Cook, *et al.*, 1971). Terrain corrections were made (using as assumed density of 2.67 gm/cc) out to a radial distance of 100 mi. (166.7 km) from each station using a hand (Hammer chart) and/or a computer terrain correction program (Serpa, 1980) for the inner zone (out to 0.895 km), and using the computer terrain correction program (Serpa, 1980) for the outer zones (from 0.895 km to 166.7 km). Contouring of gravity values was done by hand.

PRINCIPAL SOURCES OF GRAVITY DATA



SYMBOL	INDEX NO.	INVESTIGATORS OR PROJECT
	1	Mudgett, P. M., 1962.
	2	Sontag, R. J., 1965.
	3	Isherwood, W. F., 1967, 1969.
	4	Fishman, H. S., 1976.
	5	Thangsuphanich, I., 1976.
	6	Sawyer, R. F., 1976.
	7	Crebs, T. J., 1976.
	8	Case, R. W., 1977.
	9	Brumbaugh, W. D., 1977.
	10 a	Carter, J. A., 1978.
	b	Gravity class, 1965.
	11 a	Halliday, M. E., 1978.
	b	Gravity class, 1976.
	12	Carrier, D. L., 1979.
	13 a	Serpa, L. F., 1980.
	b	Gravity class, 1977.
	14 a	Gabbert, S. C., 1980.
	b	Gravity class, 1963.
	c	Gravity class, 1964.
	15	Cook, *et al.*, 1978.
	16 a	Special project area A, 1978.
	b	Gravity class, 1975.
	17 a	Adhidjaja, J. I., 1981.
	b	Adhidjaja, J. I., 1981.
	18	Peterson, D. L., 1972.
	*	Zimbeck, D. A., 1964.
	*	Upper Mantle, 1966.
	*	Western Utah, Montgomery, J. R, 1969.
	*	Lund, Utah, 1974.
	*	Selk, D. C., 1975.
	*	Mabey, D. R., 1980.

*No index number was assigned to this survey because it was either part of a large regional survey in which the stations were widely separated or the stations were along profiles only.

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*All theses, reports, or publications indicated with an asterisk include a listing of the principal facts of the gravity stations in the surveyed areas.

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*Kennecott Copper Corporation
*Mobil Oil Company
*Phelps Dodge Corporation
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Base map V502, Edition 3, prepared by the U.S. Army Topographic Command (FSGE), Washington D.C. Compiled in 1955 by photogrammetric methods and from USGS quadrangles, 1:24,000 and 1:62,500, 1932-53. Planimetry revised in part from aerial photographs taken 1953. Photographs field annotated 1953. Revised in 1972 by the U.S. Geological Survey from aerial photographs taken 1971.
Location of geodetic control established by government agencies is shown on corresponding 1:250,000-scale Geodetic Control Diagram.

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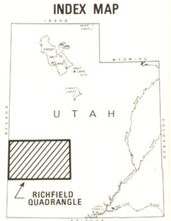
INDEX MAP



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES AND ENERGY
UTAH GEOLOGICAL AND MINERAL SURVEY

MAP 59

COMPLETE BOUGUER GRAVITY ANOMALY AND GENERALIZED GEOLOGY MAP OF RICHFIELD 1° × 2° QUADRANGLE, UTAH

December 1981

By Kenneth L. Cook, Jopie I. Adhidjaja and Stephen C. Gabbert
Department of Geology and Geophysics, the University of Utah

Sandra R. Stewart, Cartographer

Prepared by the Utah Geological and Mineral Survey
in cooperation with
the University of Utah and the U.S. Geological Survey

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Scale 1:250,000

CONTOUR INTERVAL 200 FEET
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DECLINATION, 1980